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THE CHARTER OF 1844.

Until the year 1828 the veterinary practitioner was an isolated individual who, if he had a grievance, could do little more than grumble. He had no journalistic organ through which he could appeal to his colleagues, no Society to which he could address himself, and no place of meeting at which he might find sympathy and assistance. Each man went his own way, and all suffered from the weakness of their isolation. There was a College in London and one in Edinburgh. These institutions regulated the amount and duration of studies, and then granted certificates to such students as satisfied a private Board of Examiners appointed by the School. Unfortunately the examining bodies consisted solely of medical men—an arrangement which could only be excused in the earlier days when practitioners of veterinary medicine and surgery were usually destitute of any scientific training. The London School was founded in 1791, and its graduates as they increased in numbers and influence not unnaturally resented the constant flow into their calling of men who were only half taught and very partially examined. The practitioners who had intelligence and experience complained that the school ignored their acquirements, and they insisted that the Examining Board should contain at least one or two men who possessed practical knowledge of the art and science of veterinary medicine and surgery. To all their suggestions the Veterinary College turned a deaf ear until, in 1828, Percival and Youatt launched *The Veterinarian*, and some other practitioners started *The Farrier and Naturalist*. In these two monthly journals the practitioners found a means of giving voice to their well-founded complaints. The latter publication ceased in 1829 and it must be confessed was conducted with a want of that quiet judicial spirit which is most convincing, but it stated its grievances fearlessly, and pointed out the necessity for radical alterations. *The Veterinarian* was a more sober journal and it survived both indifference and opposition. It educated the practitioners, and enabled them to act together more forcibly. The principal of the London School was then Professor Coleman, a man of the highest intelligence and great force of character. He ruled the College absolutely. His governors, colleagues and students all accepted his dictum as final, and the practitioners were unable to break down his steady opposition to all changes. Not until his death in 1839 was any possibility of improvement admitted, nor were the complaints of the practitioners listened to. When Coleman had passed away resistance was less effective, and the practitioners renewed their efforts for some reform. In 1840 a few of the bolder spirits memorialised the Governors of the Royal Veterinary College, pointing out grievances and indicating reforms. The memorialists complained (1) that veterinary surgeons were excluded from the examining board (2) that they were not accepted as subscribers to the College (3) that the Governors of the College consisted entirely of men who possessed no practical knowledge of veterinary matters; they also pointed out how desirable it was that a competent teacher of cattle pathology should be added to the staff, and that the examiners should make some distinction between those students who had seen practice, and those who had not but who had studied for a period of one short session at the College.

The memorial was treated by the governors of the school with the irritating indifference which had marked all their dealings with the practitioner, but the men who now led the agitation were not to be stopped eitheir by passive neglect or by active obstruction. A Committee was formed with Thomas Turner as Chairman and T. W. Meyer as Secretary. Practitioners joined the Committee from all parts of the kingdom, and by the end of 1840 the memorialists had reached the respectable number of 400. At this time, a little common sense on the part of the College Authorities and an honest recognition of the rights of practitioners would have disposed of the Charter of 1844, and probably have left us a disunited calling to this day. For years a charter had been suggested as the remedy for all the evils afflicting the practitioner, but no one had formulated the lines upon which this Charter was to be drawn. In 1840 the proposal was to apply for a Charter for the Royal Veterinary College and its graduates, but the sapient governors would not assist. Had such a charter been granted we should immediately have had another chartered institution in Scotland, and the two rival schools would then have controlled the practitioners and the teaching bodies have continued their own examining boards. Fortunately the governors of the Camden Town School haughtily refused any advice from, or compromise with the practitioners, and so the agitation for reform continued. The proposal for a charter was widened to include all graduates from the Edinburgh as well as from the London School. A meeting of practitioners was held in Glasgow on April 23rd, 1841, with Mr. Archibald Sinclair as Chairman and decided to collect subscriptions and to act with the committee in England.

The first application for a charter was not well received, and a deputation that waited upon Sir James Graham met with a very positive refusal. Nothing daunted the Committee kept on their way, but apparently ceased to attempt the impossible task of working with the Governors of the London School. The leaders of the movement were Thomas Turner, William Goodwin and Thomas Meyer, senr. To these in 1843 were added William Dick, William Sewell, Charles Spooner and J. B. Simonds. A draft charter was produced, and signed by the above gentlemen as petitioners. It was submitted to the authorities of the London and Edinburgh Schools, who approved it, and then a further application was made to Government. For some months nothing is heard of the Charter, but we may be sure that it was carefully looked after by Turner, Goodwin and Meyer, who had in those days the same back-stair influences to guard against which are even yet felt by reformers who have to face either departmental or parliamentary officialdom. In the March number of *The Veteri-*

narian for 1844 it was first publicly announced that the Charter had been granted, and that five years incessant work had been crowned with success. An editorial note says "its value cannot be too highly estimated—it will in truth form the commencement of a new and glorious era in the veterinary art."

The cost of the Charter was £700, for which the Committee made themselves responsible, and for which they were only recouped later by a subscription to which the practitioners responded warmly and gratefully. All honour to the men who won for us our independence, and without whose unselfish toil we should still have been a disunited calling!

The first general meeting was held on April 12th at the Freemasons Tavern, Thomas Turner in the chair. The Charter was received, and Professor Dick protested that it was not the same as the draft he had approved—there were both omissions and additions of which he did not approve. No protest was made by the petitioners connected with the London School. After the meeting there was a dinner at which between 50 and 60 attended. No discordant note was sounded, and harmony seemed to have been attained.

The Chairman in his speech said "To Mr. Meyer it must be acceded that he was the first grand mover in this undertaking. Several years ago Mr. Meyer came to London to argue the propriety of making an effort to obtain a Charter. . . . . To Messrs. Field, Mavor and King and several others they were principally indebted for bringing about that consummation they were all met to celebrate."

Mr. Meyer in his reply remarked "We now possess a standing and position in Society—before this we had none. We have now proper controlling power over the education of the student. I trust we shall use our powers discreetly, and continue in harmony, good fellowship and feeling with the professors of the teaching schools."

At a Council meeting held on April 15th Mr. Gabriel was elected secretary. A temporary Board of Examiners was appointed, and the thanks of the Council were given to Mr. Meyer, jun., for the work he had done as secretary to the committee.

The Charter was not yet safe. On July 12th the President was astonished to receive a letter from the Secretary of State announcing that petitions had reached him from the Royal Veterinary College containing allegations against the Charter recently granted. The petitions alleged that alterations had been made in the Charter "tending to the prejudice and disparagement of the Veterinary College, made after the draft had been approved by Mr. France, solicitor to the said College." They also grumbled at losing the control of the examinations, and held up for admiration the work the College had done for years. To this the Royal College of Veterinary Surgeons replied that no alterations had been made by them except those which had been submitted to and approved by the College solicitor. Finding they could not obtain the withdrawal of the Charter the Camden Town School altered the form of attack, and prayed that "two of the medical officers and one of the professors attached to the College" should form part of the Board of Examiners, or failing this "that the Royal Veterinary College of London be altogether withdrawn from the operation of the Charter." Soon the Edinburgh school also took fright, and petitioned against the Charter. They were not able to do any harm, but they obtained the assistance of two powerful political bodies—The Royal Agricultural Society and The Highland and Agricultural Society. Thus re-inforced they returned to the battle, and for years the two schools endeavoured to shake off the control of The Royal College of Veterinary Surgeons. Not till 1852 was peace re-established between the College and the London school. In that year Professor Sewell was elected President of the College, and the hatchet was buried.

It is quite impossible to imagine what would have been our position to-day if the Charter of 1844 had not been granted. It was the first of a series of Charters, and it was an essential preliminary to our obtaining the Act of 1881. All our privileges are traceable to the first Charter, and our sense of gratitude would be defective indeed if we did not remember on this anniversary the debt we owe to the men who obtained and defended the Magna Charta of our professional independence.

COMMINUTED FRACTURE OF THE DENTATA.

By Vet.-Major W. S. Adams, Remount Depôt, Hosür.

A horse standing on a circular picket, picketed by the head, was reported to have hung back, pulling on to the head rope, he then plunged violently forward and fell headlong, dying almost instantaneously. I saw the horse as he fell, and from his position I think the account of the accident is correct. There were but few signs of struggling, the horse must therefore have died nearly suddenly.

Post-mortem examination showed the dentata to be shattered.

Remarks. This fracture is, I imagine, not of common occurrence, or records are few; I have specimens of fractures of other vertebræ, but not of the dentata. I find an interesting case recorded in *The Veterinary Record* by Mr. W. Hunting, F.R.C.V.S., of a fracture of the dentata, which accident happened to a mare in the hunting field. In clearing a jump the mare "landed on her head and turned completely over." This case is of special interest on account of the fact that the mare walked 18½ miles after the accident. A case came under my notice in which a horse, by falling on his head, dislocated the articulation between the atlas and the dentata, the odontoid process being forced upwards caused compression on the spinal cord and instant death; in this case there was no fracture. Fracture of the vertebræ could only be caused by great and sudden violence. I think when a horse falls with his head depressed and forced towards the chest that the dentata would be more liable to fracture. A fracture of the 4th or 5th cervical vertebra would be more likely to occur when a horse falls and his head is doubled under the side of the neck. In the first instance the fracture would probably be occasioned at the time of the fall, and in the other by the roll over.

TETANUS BY CONTAGION.

By J. A. Robinson, Market Deeping.

On February 16th I docked a two-year-old filly belonging to a tradesman in this town. The animal was of a very nervous disposition, but took no more notice of the operation than is usually the case. Ten days afterwards the owner came to my place saying he thought his mare was suffering from pinkeye as its eyes had a very peculiar appearance. On visiting it shortly afterwards I found well marked tetanus, which developed so rapidly that notwithstanding the administration hypodermically and per rectum of most of the sedatives in the pharmacopœia (the owner being like the patient very nervous, and persisting in having something done) the animal died on the 4th day of the disease and the 14th after the operation.

On March 4th I castrated a two-year-old colt which was sent to my infirmary for that purpose. The operation was by torsion, my usual method. On meeting the colt at exercise a week afterwards the wounds in the scrotum had almost entirely healed, and as his owner was anxious to get him at work I told him he could begin to use him in a few days.

On the 20th I was asked to look at him as he seemed to be very stiff, and to have a peculiar look about the eyes. On visiting him I found all the symptoms of incipient tetanus, and as I had never before had a case of either docking or castration that had given me any after-trouble, I began to think that in prospect of another unfavourable termination, the fates were dealing rather hardly with me. The particuliar point of interest in this case is that on first visiting him I found hung up to dry within a few yards of his box, the skin of the filly which had died, the carcase having been purchased by the owner of this case (a saddler) in the ordinary course of his business. The skin was now partially dressed, but the owner said it had lain in the yard in its fresh state for several days after the colt had been castrated.

The source of contagion seems to me to be more clearly proved in this case than in any previously reported, as generally where cases occur together they appear to be more of an enzoötic than a contagious nature. No case of tetanus has, to my knowledge, occurred in this district for more than twelve months previously to these, and I have had none since, though it is the height of the castrating season. This case was favourably situated as to locality, being in a quiet place, and the box warm and roomy.

The disease increased in intensity for twelve days, at the end of which time every muscle of his body seemed to be in a state of contraction and the animal suffered intense agony. From this time the symptoms gradually subsided, and with the exception of his being thrown back by his dislike to slings, into which we were forced to put him, as he was unable to rise when down, the patient made an uninterrupted recovery, much to my relief; for in the country, where every man knows more about his neighbour's business than his own, these sort of cases are anything but pleasant.

The patient during the course of the disease received no medicinal treatment, but had every possible attention paid to his comfort. He was always able to suck up fluids, and though only able to swallow with great difficulty, still managed to take sufficient nourishment to maintain himself in better condition than might have been expected, considering the immense amount of tissue waste taking place.

At the last meeting of the Yorkshire Society a gentleman observed that he did not see how tetanus could arise from docking unless the operation was performed with dirty instruments, or in a rough and careless manner. When practising some years ago in Wales I have known horses to be docked by being backed up to a gate and the piece of tail chopped off with a carving knife and mallet, the stump being seared—not half seared either—with any piece of iron that was handy and put in the fire. Another method was to leave on a ligature and to tie the hair over the stump with a ball of horse dung placed against the raw surface. As to castration, scores of colts were castrated by men who looked as if they never washed either themselves or their instruments from the commencement of the season to the end of it, but I am not aware of a case of tetanus following either operation in that district.

I am of opinion that the method of operation is not of nearly so great importance as the condition of the animal to be operated upon, and that in those cases where tetanus follows an ordinary operation, it is the individuality of the animal attacked which renders it a prey to organisms which are unable to find pabulum in the tissues of others whose condition appears to be exactly similar.

PROLAPSUS RECTI IN A FILLY.

By Michael Pottie, M.R.C.V.S., Seaham Harbour.

On the morning of 4th May last I was requested to visit a yearling hackney filly thought to have been injured about the anus. She was grazing at the time of the accident but was subsequently removed to a loose box.

On entering the box I noticed a mass of jelly-like material, about the size of a child's head underneath the tail, and scratches about the legs; she was rather uneasy, and pressed occasionally. A halter and twitch were put on, and after examining and bathing the protruded part I gradually returned it to its normal position. The posterior part of the bowel was then emptied by my hand (this caused her some uneasiness, the fæces being very dry) and an enema was given of warm water and linseed oil, which she expelled almost as soon as it was introduced. A truss was then applied made with a piece of thin rope and a small pad secured against the anus, as the rope seemed not sufficient. I then gave her a pint of linseed oil and 1oz. tinct. of hyoscyamus, and left instructions to feed cautiously on grass and sloppy mash with an alterative powder in it; to give enemas

every two or three hours and sedative medicine if required. As the enema did not bring away the fæces they had to be removed occasionally during the day.

Next morning she was dull, slightly fevered, and pressed at times, but after the rectum was emptied (which contained dry fæces) and another full pint of oil had been given she seemed easier. We then removed her to a temporary stall with a sloping bed of moss litter high behind and low in front. The truss was removed, but she was unable yet to pass fæces herself.

On the third morning there was not much improvement, so I at once gave a 5dr. physic ball and made her as comfortable as possible, and at night she began to purge, the grass was then mixed with hay until she stopped purging. Her bed was levelled gradually and now she seems all right again.

"TAILS AND DOCKING."

By Thos. B. Goodall, F.R.C.V.S., Christchurch, Hants.

In the course of a recent lecture on "docking," a very much esteemed Professor was careful to impress upon his audience the idea that "steering" the body was the function of the tail of the horse; that it acted in the capacity of a "rudder" and was of great importance in helping the horse to turn shortly; and in the debate which followed, allusions were made to the tails of other animals, but all bearing upon the point whether or not "steering" was the function of the tail. Comparisons were made with certain members of the Rodentia, how the hare could turn sharply though having only a rudimentary caudal appendage, whereas this was long in another member of the same family—the rat—and so on.

But it appeared from the report that it was overlooked by those who took part in the discussion, that organs become *specialized* in different individuals and become subservient to a *special* use in each; and certain organs that are of almost vital importance in one animal may become aberrant in others—take, for instance, the eye of the hawk, and that of the mole, or, as an instance of the performance of different functions take the specialized hand of man and the large single phalanx of the horse—many other examples might be given, but these are sufficient to illustrate the point.

Nature never makes a blunder, and where an organ is specially required for a purpose, it is so made that it answers that purpose in its best form.

If the tail of the horse were meant for a rudder it would never have been so situated as to have the bulging of the hips and quarters immediately in front of it on either side, for when the horse is going at any speed these would certainly break the current of air from striking the tail with any force, assuredly not sufficient to have any effect in aiding to turn.

Fancy a builder planning a yacht with a huge bulging on either side of the "run" of the quarters fending off the force of the water from the rudder! No! Man knows that these "runs" must be made very clean, and in such a way that the rudder may be struck with the greatest amount of force, and so turn the vessel.

In those animals which have the tail *specialized* for steering the same law holds good, the lines of the body taper off to the region of the tail more perfectly than the best planned yacht, provision being made that nothing shall break the line of the "run." This is best seen in certain fishes; but also in the Cetacea and Sirenia, true mammals, the hind extremities are aberrant, and in the graceful swift the legs are enfolded in the skin, all with the object of giving the tail the best play in guiding the body. Just watch the swifts in their aerial turns, going sometimes apparently full tilt at a house end, and turning gracefully away within a fraction of an inch; and then examine one of these birds and see how beautifully the lines of the body are perfected for the tail to act as a rudder. And so we can say that in those animals I have named, amongst many others, the tail is *specialized* for the purpose of steering.

In burrowing mammals where the tail is not required, it becomes aberrant, as in the guinea-pig, or rudimentary, as in the mole, or very small, as in the weasel and rabbit.

In some of the Muridœ (rats and mice) the tail is prehensile, and is of great assistance to these animals in climbing. Who does not remember, as a schoolboy setting white mice to climb a string, or to walk the tight rope, how their tails wrap round the string and steady their bodies? This form of *specialization* is best seen in some of the monkeys.

In cattle and the horse, the tail has become *specialized* for the undoubted purpose of enabling these animals in their wild and free state, to dislodge irritating insects from their bodies, and a glimpse is given us of the wisdom of the Creative Mind, to note why there should be so much difference in the make of the tails of these animals.

The tormentors of cattle are a kind of fly that belongs to the great order of the Muscidœ, and they are seen to attach themselves in thick clusters on their backs, (I am not alluding now to the œstridœ) and the tail is *specialized* so as best to dislodge them, a loose, heavy pad, covered with hair at the end of a long pliant handle, which can be brought round to the particular spot the tormentors most like.

The "fly" by which the horse is irritated most is one of the Simuliidœ or "midges" armed with a sharp lancet-like mouth, and it is particularly fond of insinuating itself on those parts of the body where the skin is thin, on the sheath or mammæ, and the natural tail of the horse acts as a powerful *switch* to dislodge them from these parts, as well as from others on the quarters and sides, and it is *only* on this point that a rational question could be raised as to the *cruelty* of docking horses.

So long as the horse is kept in a state of domestication, and is protected in the stable from these irritating and annoying creatures, the absence of a certain length of the tail does not signify, but let a "docked" horse be "turned out" in the summer, and it will then be seen how without his *specialized* "switch" he is tormented beyond endurance by his bloodthirsty little persecutors—but as for its action in the

-turning powers of the horse it cannot matter in the least.

Man should be taught that if he, in his fancied wisdom, sees fit to "improve upon nature" by depriving the horse of his natural means of protection from insect tormentors, he should not in this mutilated state be exposed needlessly to their ruthless attacks.

The cruelty attending the operation itself is a myth, and not to be compared with "clipping" which has not yet been made illegal, though goodness knows where these restrictions may end. Neither are there so many fatalities attending "docking" as "clipping."

Who has not seen poor brutes of horses after having a long coat taken off left to shiver and shake in a cold and draughty place called a stable with nothing but a rag to cover them? Would a rational man hesitate to say which is the most cruel "docking" or "clipping."? Both operations under certain conditions add to the usefulness of the horse; neither of them is cruel if man does his best to supply artificially that of which the horse is deprived, viz., protection from insect pests in the one case, and from cold in the other.

LUNG DISEASE IN CANADIAN CATTLE.

(*Continued from page* 684.)

The yellow books contain a number more letters and reports, but our space forbids their publication. Perhaps the two following contain the chief points of interest on either side.

Minute by Professor Brown.

In his letters of the 1st and 6th of November Mr. Hunting comments on the case of pleuro-pneumonia landed from the "Hurona," and remarks that I have described it as a perfect example of the North American type of pleuro pneumonia, adding that he has yet to learn that there are any variations in the type of the lesions in the contagious lung disease of cattle, whether found in North America, Australia, Europe or Asia. My statement, as he knows, referred to North America or Europe. Like him, I have yet to learn about the other countries, and I can only hope to acquire the knowledge as I have acquired it in regard to the American type, *i.e.*, by the careful examination of hundreds of specimens in the course of the last 14 or 15 years.

Mr. Hunting considers that the absence of any other cases among the cargo of 758 cattle is the most valuable evidence of the nature of the disease. So do I. Indeed I have repeatedly pointed out that the occurrence of isolated cases of lung-disease in large cargoes, all the animals of which have been exposed to the same hardships and climatic changes is almost a positive proof that the disease is not ordinary inflammation due to common causes, but is an affection depending on a specific cause. Mr. Hunting, however, considers that the fact of the disease not extending to other cattle of the cargo in the period between October 7th and October 28th is incompatible with the theory of contagion. If Mr. Hunting had had much experience with pleuro pneumonia he would know that at least double that time might be expected to elapse before any further cases of the affection would occur.

In the whole of my long experience I have only met with one case in which an animal that had been exposed to infection was found to have a well-defined patch of pleuro-pneumonia about three inches square in one lobe of the lungs when slaughtered about 17 days afterwards. On the other hand, there have been numerous instances even during the last few years of outbreaks of pleuro-pneumonia in which the first animal slaughtered exhibited the disease in an advanced form, but on post-mortem examination of the rest of the herd no other cases were detected although all the cows had been in the same shed for months. Of course, in making this statement I quite understand that I am open to the retort that the disease could not have been pleuro-pneumonia.

Mr. Hunting's letter of the 10th of November deals generally with my last memorandum.

Once more Mr. Hunting lays great stress on the peculiarity which was pointed out to him and to the High Commissioner, at the Veterinary College, *i.e.*, general uniformity of colour of the lobes of the diseased lung in Canadian cattle, and he asserts that in his experience it is not the case that similar areas of uniform colour are found in cases of British pleuro-pneumonia. I can only suggest that if his experience had been as extensive as that which has necessarily fallen to the share of the Veterinary Officers of the Board he would be able to refer to a large number of such cases. Mr. Hunting adds that he knows of no veterinary authority who has published any statements agreeing with mine. So far as I am aware, there are extremely few veterinary authorities who have published anything on the subject of pleuro-pneumonia. I made the statements on my own responsibility as the result of constant observation for the last quarter of a century. Again Mr. Hunting refers to the absence of old-standing cases the detection of which he says might be expected, as every animal sent from Canada is examined after death. Mr. Hunting is entirely mistaken. Canadian cattle were all submitted to post-mortem examination for a few weeks in the summer, and then the special order was revoked and they were treated as other cattle which are landed at foreign animals' wharves. No post-mortem examination is made unless the Veterinary Inspector happens to observe something which excites his suspicion, or his attention is called to a diseased organ by one of the butchers.

Mr. Hunting says, in reference to my previous memorandum: "It is impossible to reconcile statements in one place that the Canadian disease presents the usual and ordinary characters of pleuro-pneumonia with statements in another place attempting to explain away the differences between the two diseases." To explain away the differences is, I should say, impossible, and I certainly have not attempted it. I pointed them out in my first report, but I have never at any time questioned their existence. The reconciliation of the fact of the differences which I have observed with the assertion which I make, that the ordinary and usual appearances of pleuro-pneumonia are also present, is perfectly easy, and I will endeavour, not for the first time, to make it clear to Mr. Hunting.

The ordinary and usual appearances of pleuro-pneumonia are:—

1. Limitation of the disease to a lobe, or part of a lobe, by a well-defined line of demarcation from the healthy lung.
2. Swelling or enlargement of the diseased parts.
3. Consolidation or hepatization of the swollen parts.
4. Distinct marbling seen on cutting into the diseased part. The lobules being more or less altered in colour, and surrounded by bands of fibrous lymph.
5. The exudation of an excessive quantity of yellow viscid fluid from the cut surface.

All these conditions are found in the diseased Canadian lungs.

The differences relate to the density and colour of the lobules which vary considerably, to the character and density of the interlobular bands, and to the size and shape of the lymph spaces and degree of density of the exudate which they contain. When these differences, which are seen in association with the ordinary and usual appearances of pleuro-pneumonia, are constant, I accept them as defining a type of the disease, not as evidence of a different disease, and certainly not as evidence that it is non-contagious. Mr. Hunting may not adopt this view, but I trust he will not find any further difficulty in understanding my meaning.

Veterinary Inspectors at the ports are directed by the Contagioni Diseases (Animals) Acts and Orders to prevent the inland transit of foreign animals unless they can certify that they are free from indications of contagious and infectious disease, and the Veterinary Advisers of the Board are equally bound by the law.

In the case of the Canadian lung disease the inspectors of the ports and the advisers of the Board could not fail to recognise the ordinary appearances of pleuro-pneumonia, the appearances, that is to say, which they would accept as sufficient in an outbreak of pleuro-pneumonia occurring in this country.

I have already remarked that none of the experts whose reports have been submitted have said that the Canadian lung disease is not contagious. M. Nocard is stated to have reported on the disease for the Canadian Government. This report has not been communicated to the Board, but a report of an investigation of the lung disease which was discovered in some cattle imported into France from the United States has been published, and I have specimens of the diseased lungs which M. Nocard gave to Mr. Cope on the occasion of a recent visit to Paris, and there is no doubt that the morbid appearances are identical with those of the Canadian lungs, and with those also of other specimens which I have of diseased lungs of United States cattle. In fact, the disease is what I have termed the North American type of pleuro-pneumonia, and this is what M. Nocard says of the disease in the last paragraph of a long report, which is headed :—

An Infectious Broncho-Pneumonia of American Oxen : Corn-stalk Diseases.

"An attentive observation of the facts and an experimental study of the conditions of contagion impose the conviction that the disease has only very feeble contagious properties." He adds : If one considers besides that the American cattle imported into France are destined exclusively for the butcher, it seems scarcely probable that the disease in question could propagate itself in France."

The Veterinary Advisers of the Board of Agriculture have given in effect the advice to the English, which Professor Nocard gave to the French Government. So long as the cattle in question are destined exclusively for the butcher, we entertain no apprehension of the spreading of the disease. But I venture to assert that, under all the circumstances, it was impossible for the inspectors to certify that Canadian cattle were free from indications of contagious or infectious disease, on which condition only could they be allowed to pass out of the landing-place and cease to be deemed foreign cattle.

(Signed) G. T. Brown.

December 30, 1893.

Reply to Professor Brown.

February 17th, 1894.

Sir,

I beg to acknowledge the receipt of copy of a Minute, dated December 30th, 1893, prepared by Professor Brown. In it he comments on a letter of mine referring o a case of pneumonia found in a bullock landed from the S.S. "Hurona" ; he also criticises a letter I wrote on November 10th, dealing with a former Memorandum of his, on the general question of the nature of the disease occasionally found in Canadian cattle on arrival in this country.

The cargo of the "Hurona" included 758 cattle : amongst them was a lot of 21 animals purchased on an island in the St. Lawrence and removed to Montreal for shipment. It was an ox from this lot which was found on being slaughtered to be suffering from an affection of one lung. In my previous letter, I expressed the opinion that the absence of any disease amongst the rest of the cargo was evidence of the non-contagious nature of the lesion in the lung. Professor Brown disagrees with this, and is of opinion that the fact points the other way, and is indicative of the disease being of a contagious nature.

Pleuro-pneumonia spreads amongst closely confined masses of animals, just as do other contagious diseases limited of course by its infectivity and by its period of incubation. The period which elapses between the time of infection and the appearance of symptoms is variable, but from three to six weeks is a fair average. "From two or three weeks to as many months" is the time stated in the last edition of Williams' "Veterinary Medicine." This period applies to development of symptoms in the living animal, and everyone knows that the lesions in the lung precede, often by a long time, the external appearance of disease. Considering the 21 days' contact which obtained after sailing from Montreal, to say nothing of the four months during which contact existed on the farm in Howe Island before shipment ; considering that quite an average time for incubation existed, and yet that not one of 757 other cattle were affected, I must repeat that the facts suggest that the lung disease was not of a contagious nature.

Professor Brown says : "At least double that time might be expected to elapse before any further cases of the affection would occur." If he had said "many further cases" I should have admitted the possibility. In his next paragraph he acknowledges to have seen one case in which "a well-defined patch of pleuro-pneumonia was found in an animal about 17 days" after it had been exposed to infection, and I doubt not the experience of the Board of Agriculture includes many cases where the period of incubation did not exceed three weeks. Professor Brown mentions a very well known fact, viz. :—"There have been numerous instances, even during the last few years, of outbreaks of pleuro-pneumonia in which the first animal slaughtered exhibited the disease in an advanced form, but on post-mortem examination of the rest of the herd no other cases were detected, although all the cows had been in the same shed for months." This statement has no bearing on the case from the "Hurona." The "advanced forms" of the disease are frequently encapsuled in the lung, and for months may be incapable of transmitting infection. The disease in the lung of the ox from the "Hurona" was not "advanced" ; it was very extensive and just such as, if contagious, would have been readily transmitted.

Unless some special facts, either peculiar to the disease or to the surrounding circumstances, can be adduced, I think it will be admitted by all pathologists that a solitary case of pneumonia among 758 animals which have been in contact for a time exceeding the minimum period of incubation of the contagious form of pneumonia is *primâ facie* evidence that the disease is not contagious.

Professor Brown argues "that the occurrence of isolated cases "of lung disease in large cargoes all the animals of which have been exposed to the same hardships and climatic changes, is almost a positive proof that

the disease is not ordinary inflammation." He entirely overlooks the different constitutional peculiarities of the individual animals, and begs the whole question by assuming that all have been exposed to the same conditions. His argument would of course apply equally to cargoes of horses and cattle, yet it is quite common to find amongst imported lots of horses "isolated cases of lung disease."

The question between the Board of Agriculture and the Canadian Government with which I am concerned is simply the nature of the disease under consideration. The veterinary officers of ihe Board assert it to be contagious pleuro-pneumonia; the experts on the other side, of whom I am one, assert that it is not. Professor Brown now for the first time states clearly what, in his opinion, are the "ordinary and usual appearances of pleuro-pneumonia." They are:—

(1.) Limitation of the disease to a lobe or part of a lobe by a well-defined line of demarcation from the healthy lung.
(2.) Swelling or enlargement of the diseased part.
(3.) Consolidation or hepatisation of the swollen parts.
(4.) Distinct marbling seen in cutting into the diseased part. Ths lobules being more or less altered in colour and surrounded by bands of fibrous lymph.
(5.) The exudation of an excessive quantity of yellow viscid fluid from the cut surface.

I accept this as a fair description of an average case of pleuro-pneumonia, but I deny that "all these conditions are found in the diseased lungs of Canadian cattle." The conditions are not the same, and Professor Brown admits the differences. I accept his enumeration of them; they are:—

(1.) The density and colour of the lobules.
(2.) The character and density of the interlobular bands.
(3.) The size and shape of the lymph spaces.
(4.) The degree of density of the exudate.

An important element in estimating the significance of these differences is that they are constant. This constant difference in the lesions of Canadian disease from the lesions of pleuro-pneumonia admits of only two explanations: (*a*) that they are distinct diseases; (*b*) that the lesions of pleuro-pneumonia in Canadian cattle are different from those seen in British beasts. If the differences were not constant a third supposition might be advanced—viz., that the Canadian disease was only an early stage of pleuro-pneumonia; but this cannot for a moment be entertained, as the lesions are the same in every case irrespective of the extent of lung implicated.

Of the two possible explanations, Professor Brown accepts the latter, and attempts to fix his theory by naming the disease the American type of pleuro-pneumonia. There is absolutely no evidence to support this hypothesis, further than the fact that the inflammation of lung found in contagious pleuro-pneumonia has some general characteristics common to the inflammation of lung found in the disease affecting Canadian oxen, and, I may add, in the pneumonia of other animals where the cause is distinct and where no suspicion of contagious pleuro-pneumonia can arise.

The other explanation—that the Canadian disease is separate and distinct from the pleuro-pneumonia referred to in the Contagious Diseases (Animals) Act—is supported by the fact that constant differences are found on post-mortem examination, easily recognisable by clinical observation and confirmed by microscopic examination.

Professor Brown in this minute seems to have at last recognised the untenability of his position, and to have taken the first step towards changing his ground.

Up to this time it has always been insisted that the Canadian disease is ordinary and usual pleuro-pneumonia. Now it is asserted that "there is no doubt that the morbid appearances are identical" with specimens of lung discovered by M. Nocard in some American cattle imported into France. This disease M. Nocard distinctly differentiated from pleuro-pneumonia, and called it broncho-pneumonia. It is recognised in America as "corn-stalk disease," and is not confounded with pleuro-pneumonia, which is also recognised in the United States.

I am not prepared to allow that the disease found in a few Canadian cattle landed here is corn-stalk disease. I only argue that it is not pleuro-pneumonia, I must leave Professor Brown to explain his admission that the lesions are "identical" with those of a disease stated by M. Nocard not to be pleuro-pneumonia.

Professor Brown asserts that "it was impossible for inspectors to certify that Canadian cattle were free from indications of contagious or infectious disease, on which condition only could they be allowed to pass out of the landing places." The words correctly state the provision of the Act, but the definition of the word "disease" is specially provided for, and the only disease at all like the Canadian is pleuro-pneumonia. Even supposing that M. Nocard is right in believing corn-stalk disease to be "feebly contagious," and that Professor Brown is right in asserting Canadian pneumonia to be identical with it, there is no mention of such a disease in the Act of Parliament under which Canadian store stock is denied admission. The whole question turns upon the identity of the disease. It is acknowledged to present constant differences from ordinary pleuro-pneumonia; no clinical sign of any contagious nature has yet been indicated; pathologists of the highest standing declare the two diseases are quite distinguishable; a careful search throughout Canada has not been successful in discovering a single outbreak of contagious pleuro-pneumonia, or even a solitary specimen of a suspicious nature. Such evidence may not be considered as of sufficient weight to overbalance the decision of the Veterinary Advisers of the Board of Agriculture, but at least it merits some further notice than a mere reiteration of professional opinion.

In my last Report I related how two specimens of lung were given to me by order of Professor Brown. They were sections which had been preserved in spirit, and were distinguished only by a piece of string attached to them. We were asked to say what the specimens were, and for that purpose they were sent to Dr. Klein, who reported that one was pleuro-pneumonia and the other was something else. Professor Brown characterises my account as imaginative and incorrect, but, fortunately, gives his own version of the facts. I am quite content that his facts and my description should be compared.

I am, &c.,
(Signed) WILLIAM HUNTING.

To the High Commissioner for Canada.

Royal College of Veterinary Surgeons.

THE EXAMINATIONS IN SCOTLAND.

At meetings of the Board of Examiners held in Edinburgh and Glasgow on and between May 11th for Written examination, and May 15th and 25th for Oral and Practical Examinations, the following gentlemen passed their Third Examination, and with the exception of three, who are not yet of age, were admitted Members of the Royal College of Veterinary Surgeons.

GLASGOW COLLEGE.

Mr. A. Crabb, Glasgow
R. Crawford, Greenock
T. C. Ferguson, Glenluce, Wigton
A. C. Howatt, Pollokshaw
J. Kyle, Londonderry
R. Margrave, Swansea
J. M. Mark, Newry
H. J. Maxfield, Congleton
W. J. Maxwell, Dundalk
J. E. Pottie, Paisley
M. White, Glasgow

DICK COLLEGE.

Mr. R. T. Ashby, Rugby
R. Beilby, Newcastle-on-Tyne
W. Blanchard, Linlithgow
De Courcy Clinchy, Longford
W. O. Dawson, Cork
M. Dugdill, Leeds
G. Furniss, Derby
G. Green, Skipton
E. R. Gibson, Durham
A. Holburn, Yorks
J. Harry, Llanelly
J. W. Lazenby, Yorks
F. C. Mason, Bridlington
P. J. Maker, Clownstown Meath
A. McFarlane, Perth
J. McDonald, Banff
R. McGregor, Edinburgh
A. Pantor, Blair Athol
W. Robertson, Harthill, Lanark
W. E. Russell, Grantham
R. W. Russell, Ayr
T. Scotson, Liverpool
W. Scott, Dalkeith
J. H. Threlkeld, Carlisle
R. S. White, Leeds
A. Wilson, Newcastle-on-Tyne
W. H. Blackburn, Monmouth
W. Brown, Sheffield
W. Grey, Leith
W. S. Mills, Newry
H. Thompson, Sheffield
J. Jones, Conway

NEW COLLEGE.

W. A. Allott, Sheffield
F. Argyle, Leicester
H. Elliott. Edinburgh
W. Hughes, Longford
R. E. Johnstone, Campbeltown
T. R. Mulcahy, Tipperary
R. Peech, Rotheram
G. R. Simpson, Beverley
T. J. Wilson, Kirkcaldy
W. Malone, Wexford
W. D. Simpson, Manchester
J. S. Smith, Haddington
M. F. Lynch, Waterford

The following gentlemen passed their Second Examination:—

GLASGOW COLLEGE.

Mr. R. Armstrong
W. Cockburn
J. Dick
J. Eadie
J. Laird
G. Magall
D. McGeoch
* Mr. J. McNeil
R. Miller
J. Rankine
* W. Roy
R. K. Rutherford
J. Stirling
* M. E. White

DICK COLLEGE.

Mr. T. Boucherhayes
H. H. Carlisle
* J. H. Conway
J. Clifford
D. Cumming
F. G. Edwards
* W. W. Golding
* J. D. E. Holmes
* W. Hunter,
P. J. Harris
* W. E. Ison
S. Johnstone
F. Lindsay
* W. M. Millar
* G. Moir
J. M. Morris
Mr. Moyahan
A. M. McClew
W. Nicol
* J. H. Norris
W. H. Pickering
* T. K. Ramsay
† W. D. Rees
D. M. Reid
F. Richardson
A. R. Routledge
T. F. Scott
J. M. Sinclair
E. Wardrope
J. Watson
* R. Watson
† W. S. Worthington

NEW COLLEGE.

Mr. T. J. Allen
T. Bowlds
J. Buck
* T. Dick
* T. Dickinson
J. E. Hutchison
J. E. Hardie
H. Lockee
J. E. Mills
A. J. Macdonald
Mr. R. J. Murnane
J. McPhail
J. Pollard
T. O. Richardson
R. C. Robinson
R. Rawlins
R. S. Rowlands
M. E. Williams
* A. A. Wilson
H. S. Jones

The following gentlemen passed their First Examination:—

GLASGOW COLLEGE.

Mr. R. Anderson
J. Crawford
W. Crawford
J. Donaldson
D. Jack
E. P. Jenkins
R. H. Johnstone
W. A. Kilpatrick
Mr. J. Marshall
J. R. McCall
J. F. McEachran
* T. Rennie
J. Smith
J. Smyth
D. Walker

DICK COLLEGE.

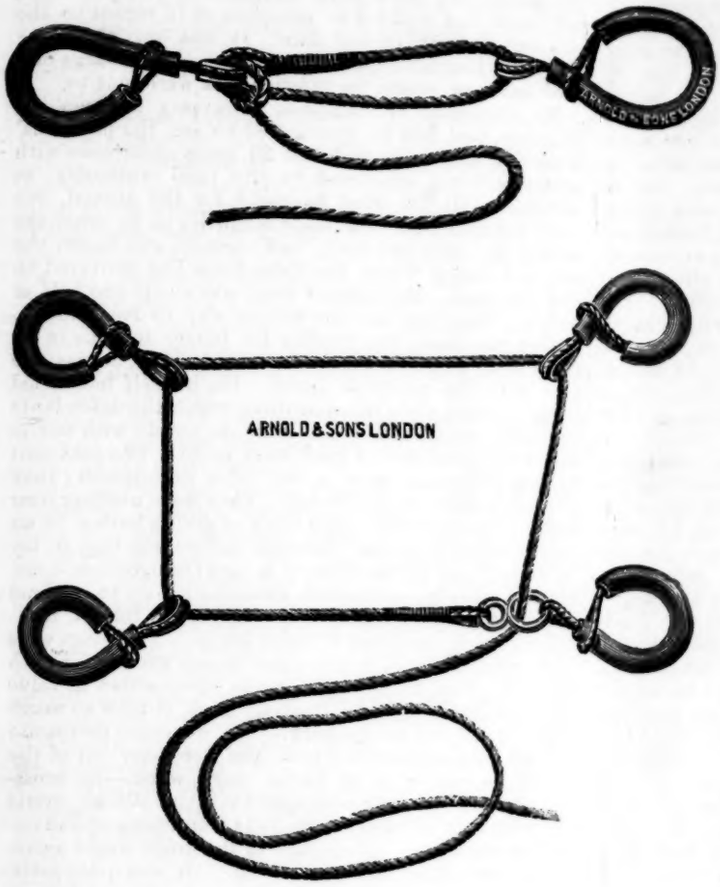
Mr. M. Allan
J. W. Brownless
P. Butler
W. Cathcart
J. Chalmers
S. Craig
W. J. Foley
J. L. Frood
F. J. Glover
T. F. Hall
R. Hadfield
J. A. Hewson
W. H. Hirst
A. Hodder
N. Howe
J. J. Jackson
Mr. J. B. Kay
W. B. Kerr
R. H. Lambert
T. D. Lambert
H. Legshore
* H. Lomas
W. H. Murgatroyd
J. P. J. Murphy
T. G. Palgrave
F. J. Pringle
J. Robertson
J. C. Stevens
J. F. Talbot
W. J. Watt
W. Young
A. Scott

NEW COLLEGE.

Mr. R. J. Bailey
T. Bannatyne
R. C. Cochrane
J. B. Collger
H. H. Ferguson
W. L. Jones
J. Kelly
Mr. A. J. O'Leary
W. M. Ogilvy
A. M. Porteous
H. M. Webb
R. D. Williams
W. H. Savage

Marked thus * passed with great credit.
" " † " " very great credit.

R. RUTHERFORD, F.R.C.V.S.,
Secretary to Board of Examiners.



NEW HOBBLES.

By Dudley James.

I beg to bring to your notice a novel description of hobbles for casting and restraining horses, which I have invented and for which I have obtained a provisional patent. I enclose for your acceptance one of the casting hobbles, which I think will show you the advantages of the invention. They are very portable, being light and not bulky; they are also simple and reliable, only the best materials being used in their manufacture; and, as all parts liable to chafe are protected, they are very durable. The india-rubber padding prevents any possible injury to the animal.

An important advantage of these cross-hobbles is the fact that when once adjusted they will not slip below the knee or hock.

The price is 21/- for complete sets of either casting hobbles or double cross-hobbles, and 10/6 for single cross-hobbles. Messrs. Arnold & Sons, London, being sole agents.

I should be much obliged if you would kindly notice the hobbles in an early issue of your journal, as I am anxious to bring them before the profession.

EXTRACTS AND NOTES.

MIXING OATS AND BARLEY.

Important Trade Dispute.

In the City of London Court on April 12th, before Mr. Julian Robins (defending judge) and a common jury, the case of the Chemists' Aerated and Mineral Waters Association, Ld., *v.* Elven was decided, raising questions of much importance to the corn trade generally. The action was brought by the plaintiff company, of Gifford Street, Caledonian Road, who sought to recover the sum of £50 damages for breach of contract against the defendants, Messrs. J. Elven and Son, corn factors, 74 New Corn Exchange, E.C.

Mr. Carrington was counsel for plaintiffs, and Mr. R. Gill for defendants.

In opening the case briefly Mr. Carrington stated that the breach of contract committed by the defendants arose in regard to the purchase of a quantity of oats. In September, 1893, the defendants' traveller named Williams called upon the plaintiff company's manager at their place of business, when the latter gave the defendants' manager an order for 10 qrs. of oats to be supplied to the plaintiff's new premises at Mitcham; and he also ordered 20 qrs. of oats together with 10 qrs. of barley for their London house. It was in regard to the oats sent to Mitcham that the breach of contract arose, there being no complaint in regard to those delivered to the London premises. The oats for Mitcham were ordered for the purpose of feeding the plaintiffs' two horses there. The sold note said that the oats were to be 38lbs. to the bushel instead of which they were only 32lbs. What the plaintiffs complained of was that instead of having supplied to them all oats the defendants sent them about half oats and half barley. The defence to be raised was that this was the custom of the corn market, and that when people bought oats they knew they were buying oats and barley. The extraordinary part of the transaction was that the defendants delivered all oats to the plaintiffs' London premises, and that it was only where they had just started in business at Mitcham that the oats and barley were sent. In consequence of feeding the horses on the description of goods sent by the defendants, the barley being very heating, one horse had died, and another was rendered absolutely unfit for work for the rest of its life. That action had, therefore been brought to recover damages for breach of the contract which the defendants entered into to supply oats, when, as a fact, they supplied the oats and barley—a much cheaper and inferior article.

Mr. Fred. G. Perry, the plaintiffs London manager, was called, and said that they had dealt with the defendants for some years past. When he gave the defendants' traveller the order for 20 qrs. of oats and 10 qrs. of barley for London, it was because they intended mixing them to see what effect it would have on the horses there. But they had no idea that the oats ordered for Mitcham were in reality oats and barley. What he bought was oats, and oats appeared in the invoice—not oats and barley. He agreed to pay 16s. 3d. per bushel for the London delivery, and 16s. 9d. for those who were

to go to Mitcham because of the extra distance to deliver. What he bought was Russian oats, but he could not say if they were to be Petersburgs or Volodgas. The price he agreed to pay was the market price of the day as shown by the *London Corn Circular*. After the horses had been feeding on the food for ten days he was sent for, and he went to Mitcham only to find that one horse was dead through eating the food and another seriously ill. He then called in a veterinary surgeon, and he found that instead of the animals having been eating oats, they had had about one-third or half barley and the rest made up of oats. He had had a long experience in the feeding of horses, and he would never allow them to have barley given them except when crushed. The reason they had oats and barley sent to London was because they intended trying a mixture as an experiment. They were going to add to the oats 5 per cent. of barley, hay and clover. Barley was much heavier than oats, as anyone in the trade knew. They paid the sum of 45gs. for the horse that died through eating the defendants' oats, and the other had very materially depreciated in value. In cross-examination the witness said that the horses had hard work to do, but that would not affect them sufficiently to cause their serious illness, let alone the death of one of them. It was only on one previous occasion that they bought barley of the defendants. When the defendants' traveller called upon him he no doubt produced a sample of oats. It was very likely that that sample was left with him, but he did not know whether it was or not. In nine cases out of ten it would be. If the defendants' traveller was going to swear that he left a sample he (witness) would not say that that was untrue. If the sample was submitted he would look at it, but he could not say with any definiteness that it was shown him, as he saw as many as six different samples of oats in a day sometimes. It was not a fact that he always bought according to sample. No doubt he did so very often. He did not recollect looking at the sample which the defendants' traveller was said to have brought him. It was not true that the sample shown him distinctly disclosed the fact that it consisted of barley as well as oats. He would not be likely to buy oats if a sample of barley and oats were shown him. He did not know that the oats complained of and the oats which were not complained of were part of a parcel of 200 qrs. of oats bought of Messrs. Johnston and Co., ex the steamship *Erric*. There was no reason for suggesting that at the time of the purchase in September last, the price of oats was abnormally high. On the contrary the market was in a very low state. Oats simply, that was oats unmixed with barley, could be purchased at the price of 16s. 6d. per bushel. He had bought them in London for that price at about the time he bought the oats in question of the defendants.

Mr. Gill: Is it not well-known on the Corn Exchange that there are large quantities of foreign oats sold in the name of oats which are in fact oats and barley? The witness: I was not aware of it. Mr. Gill: You have not heard of such a thing? The witness: No. In answer to further questions the witness said that he had never had delivered to him before oats which had mixed with them a large quantity of barley. It was untrue to suggest that in June last the defendants sent them and they accepted such a description of goods. About three or four sacks of the oats and barley supplied by the defendants was given to the horses. He now saw that on the delivery note there was a condition which said—"No refusal will be accepted unless a satisfactory reason be given at our office by 4 o'clock to morrow, and not accountable for weight or measurement after taken from ship or granary." The delivery note was left with him but he did not read it. He did not read all the terms and conditions of every document which was delivered to him. He had something else to do. If they had kept the sample they could have compared it with the bulk, but there was nothing to complain of in regard to the oats sent to their London place. It was only the place which had just been opened, and which was in charge of a local manager, where the inferior oats were sent to.

Mr. Frederick G. Sampson, veterinary surgeon, of Mitcham, said that he was called to see the plaintiffs' horse that died. He had had 20 years experience with horses and was employed by the local authority at Mitcham. He did what he could for the animal, but could not save her. He made enquiries as to what the animal had been fed upon, and when he was shown the oats and barley which the defendants had delivered he was surprised. He believed there was about one half of barley. That was not the proper way to feed horses. Barley was much too heating for horses to take in its raw state. It would cause the horse to blow, as was the case with the plaintiffs' horse. He himself had tried feeding horses upon the same thing which the defendants supplied, but he soon found it would not do with horses that had a great deal of hard work to do. The oats sent by the defendants were a very poor description; they were only 32lbs. to the bushel. They were nothing near 38lbs. as represented. The effect of giving barley in an uncrushed state to the plaintiffs' horses was that it lay in the stomach in the form of a very indigestible mass. He had made a post-mortem examination on the animal that died and found that the stomach was full of indigestible food, composed of barley husks. The lungs were both congested, and it had other things the matter with it. The other horse was so much deteriorated in value that if it was put to do trotting work, it blew so much that it could not do its work. The horse no doubt did not get that nutriment which was necessary out of the barley to enable it to do its day's work.—In cross-examination the witness said that the illness would come on very suddenly. He found no traces of inflammation anywhere. Congestion of the lungs would sometimes come through getting a cold. He was quite satisfied that the death of the horse was due to the impropriety of the food. He had weighed a quarter of a peck of the mixture supplied by the defendants, and he found that it weighed 2lbs. 7ozs. The oats in it weighed 1lb. 9ozs. and the barley 14ozs. The sample which he had weighed was taken from the bulk at Mitcham. He did not necessarily expect to find some tenderness in the animals' feet as the result of bad feeding.

Mr. Thomas Aitken Dollar said he was the veterinary surgeon to the Prince of Wales, amongst other people. He had had a varied experience with horses, and at the present time he had no fewer than 3000 animals under his care. From the condition of the horse spoken of by the previous witness, he had no doubt that the food which was given to the horses was improper. Barley should be boiled or crushed before it was given to animals. The way the animals were fed was a predisposing cause of their death; animals fed as those were would rapidly lose condition. The nitrogenous principle in barley was 10 per cent. less than in oats. He would not give whole barley in any state to horses, it would be a most dangerous thing to do. In cross-examination he admitted that it was very often done. All people at times, he said, were very anxious to cut down their expenses, and the lowering of the price paid for fodder was one way in which it was tried, but it never succeeded. Indeed, it was a very foolish attempt at economy, for it was no economy at all. By feeding animals on barley the death rate was increased and their usefulness diminished. If they did not work they might be fed in that way, and there would be no perceptible change, but if the horse was doing hard work it would be affected the first day it was put on such food. It would begin to deteriorate at once. Of course horses varied a great deal, like human beings. They had their idiosyncrasies,

too. (Laughter.) He had never known, in all his professional experience, anyone giving barley to horses in such a large proportion as 50 per cent. It was a common thing for 10 per cent. to be used, but that he disapproved of.

Mr. William Morley, of Acacia Road, West Dulwich, the manager of the London Parcels Delivery Company, having the control of 400 horses, said he did not like to have barley and oats such as the defendants had supplied given to his animals. He knew, he admitted in cross-examination, that foreign oats and barley were sold on the Corn Exchange as oats; but he thought unadulterated oats ought to be sold for 16s. 3d. When buying on the market, one, as a rule, purchased on sample; then there was no question as to what one was purchasing. It was the custom that if a bargain was not repudiated within a certain time they were bound to adhere to the deal and keep the goods and pay for them; but he generally dealt of people who were always ready and willing to put anything right that went wrong. He had never had to reject corn.

Mr. Robert Holloway, manager of the plaintiffs' branch at Mitcham, was called to speak of the work of the horses while they were eating the plaintiffs' food.—Robert Munday, the carman, said he treated the animals properly, and evidence was given of the price that the plaintiffs paid for them.

For the defence Mr. George H. Williams gave evidence, and said when he called on the plaintiffs and saw their manager, he produced a sample of oats ex *Erric* and showed it to Mr. Perry. It was from that sample that the purchase was made, and as it contained oats and barley, Mr. Perry must have known what he was buying. He left a sample of oats, now in dispute, with Mr. Perry and the sample had never been returned. He supposed Mr. Perry looked at the sample as was his general custom, but whether he did or not he could not swear. What he made sure about was that the plaintiffs' manager cut him very fine about the price. Mr. Perry never bought with his eyes shut. He had sold 1000 qrs. of oats from the same ship, and there had been no complaint. In cross-examination he said his view was that the contract was fulfilled if he sent oats and barley when only oats were ordered, if he sold by sample. If the plaintiffs had bought oats simply, they would have had only oats sent them; but they did not. The price of oats varied according to the number of lbs. to the bushel, on that day he sold the oats according to the *London Corn Circular*, the quotation was 15s. to 16s. He, like the lawyers, charged as much as he could get. (Laughter.) What he sold was 38lbs. to the bushel; they were not 38lbs. of oats to the bushel because that was not what he sold. He did not know why there should be any difference in the oats sent to plaintiffs London address and to Mitcham, seeing that they all came from the same vessel. There was certainly no difference made in the order, so there could not have been any difference as the plaintiffs alleged. Oats might be sold which were 36lbs. to the bushel natural, but then they had to add 2lbs. to make it 38lbs. to the bushel where 38lbs. had been ordered. This was the custom of corn markets.

Mr. Carrington said it might be a custom to put water into milk, but it was a practice which could no more be commended than the defendants' habit of putting barley into oats.

The witness added that the sample which he shewed the plaintiffs' manager was taken from their wharf. Mr. Chas. Tiffin, the defendants' cashier, spoke to getting the sample and giving it to the last witness.

Mr. Percy T. Clark, salesman to Messrs. John Johnston and Son, said for the past two years it had been the custom to sell barley and oats as oats. Sometimes the dealers mixed them, but in this case they arrived from abroad mixed. The Customs authorities reported them as such. During the year of 1893 they sold in all about 40,000 qrs. of oats and barley as oats upon sample. People always knew what they were buying. The witness, in cross-examination, said that mixing oats and barley was the German form of adulteration, but it was also done in Russia. If they were going to describe the goods sold to the plaintiffs they might say that they were oats and barley, but they would not sell except upon sample. It was misleading to the public for the *London Corn Circular* to quote the price of 15s. for oats at 38lbs. to the bushel. It was true it was done in another paper but that was misleading too. They could not have sold pure oats for 16s. 6d. They would have had to pay that themselves.

Professor Pritchard was then called to say that from his experience as a veterinary surgeon for a great many years there was no reason to suggest that giving barley to horses would cause their death. The mixture in question was very good food; indeed, it was the best kind of food, and such as he would give to his own horses if they had heavy work to do. Had the barley had an injurious effect on the horses they would have suffered in their feet, which they did not do. The presence of undigested food in the animal's stomach was a mere coincidence. In his opinion the horse did not die of barley feeding. He would not give a horse 50 per cent. of oats in its food any more than he would give it 50 per cent. of barley. Barley would digest just as easily as oats.

Mr. W. A. Pattison, member of the firm of W. A. Pattison and Co., Corn Exchange, said that Russian oats and barley were now sold on the Exchange as oats. He had sold tens of thousands of qrs. of them. Several witnesses were then called to say that they had for years fed horses on barley and oats, and they did well upon it.

The learned Judge then summed up, and said the case would require the careful consideration of the Jury. The evidence given was very conflicting. If they believed the plaintiffs' manager that he bought oats only, the contract was not fulfilled by the defendants delivering oats and barley. If, on the other hand, the plaintiffs bought by sample, then they had nothing to complain of. If they were of opinion that there had been a breach of contract, then they must thoroughly satisfy themselves that the barley had caused the death of the horse, before they could find for the plaintiffs.

After a short deliberation, the jury found a verdict for the plaintiffs for the full amount claimed, £50, and costs were allowed.

HORSE SURRA.

Dr. Lingard is pathologist to the Civil Veterinary Department of India, and his first investigation has resulted in an enormous volume in the usual official form. With the remark that it might well have been condensed, we reprin tthe following appreciative notice of the work from *The Times of India*:

"Volume I, is confined to surra as it affects the horse, and to a series of experiments with the infusoria taken from that animal. Of the value of this report not only to Government but to the horse-owning public, wherever this disease is found, there can be no doubt. It represents an amount of labour which only an enthusiast could have attempted or undertaken, and only a highly trained scientist could have carried to such a successful issue. The mass of evidence brought forward in the appendices in support of the theories advanced by Dr. Lingard are at once proof of the amount of patient and constant labour which he has devoted to the subject. The term surra is derived from the Hindustani *surgaya*, literally

"gone rotten," because of the appearance a horse presents when affected by the malady. Dr. Lingard defines surra as "a specific and continuous febrile disease, occurring spontaneously in solipeds and camels, and capable of being transmitted by inoculation to other animals. It is due to the presence in the blood of an infusioria (*Trypanosoma Evansi*). It is chiefly met with in an epidemic form, during certain months of the year, viz., between July and January. It is characterized by an intermittent, remittent, and sometimes a relapsing type of fever, which continues for varying periods, from a few days to months, according to the species and the constitutions of the animals attacked, and presents definite symptoms following each other in regular sequence. The chief symptoms in addition to the fever are the occasional appearance of an urticarial eruption, general or localized, closely following the first rise in temperature, but which may make its appearance at any time during the course of the disease ; then the presence of petechiæ on the mucous membranes, lachrymation, and the exudation of a yellow semi-gelatinous material into the subcutaneous and other connective tissues. There is rapid wasting and great weakness, although in the great majority of cases the appetite remains good throughout, no matter how high the fever. There is extreme pallor of the visible mucous membranes, and this is followed at a later period by yellowness. From first to last there is progressive anæmia; the blood at first presents a normal character, but after a varying period of time undergoes marked changes. The white corpuscles are increased in number, and the red corpuscles usually cease to form normal rouleaux, lose their individuality, and run together, forming irregular masses, which are at first dark, but gradually, as the disease advances, almost entirely lose their colouring matter, and become pale.

"The presence of the infusorian is not continuous during the whole course of the disease. At first it is usually found in small numbers in the blood, and increases with greater or less rapidity, until, having attained a maximum, it disappears either gradually or suddenly to re-appear after an interval. The periods during which it is present in, and absent from, the blood are marked by extreme irregularity, varying from one to six days, but the latter number is very unusual."

"The disease is invariably fatal ; death being generally due to exhaustion, but sometimes to concurrent complications. After death no specific lesion is present, but as a rule there are small sub-pleural and sub-endocardial extravasations, together with enlargement of the liver and spleen, and if death takes place during a paroxysm, the hœmatozoon will be found for a certain time in the blood."

Inspecting Veterinary-Surgeon Griffith Evans was the first to describe this malady in India in a report to Government in November, 1880. In it he showed that this disease was capable of transmission to healthy animals by the subcutaneous injection of blood, and by giving the animals to drink fresh blood containing live parasites, and that it is not contagious in the ordinary way. Steel, five years later, reported on an outbreak amongst transport mules in Lower Burmah. This observer considered that the disease must be regarded as a true relapsing fever, closely resembling relapsing fever in man, but essentially the same as the disease described in 1880 by Evans as "Surra," and only differed from it sufficiently to warrant his considering the cases as local varieties of the same disease. In 1886 Gunn reported an outbreak at Kohat, on the North-Western Frontier, among the grass cutters' ponies belonging to the Mountain Battery located there, and Nuttall encountered and reported on two severe epizootics in 1886 and 1887, which attacked the horses and baggage animals of the 19th Bengal Lancers stationed at Meerut.

The geographical range of surra is much wider than it was at one time supposed. It is enzootic in Bombay, the Konkan, and Burmah, and appears at irregular intervals in many other parts of the country. It is also found in Persia, Abyssinia, and, probably, also in Southern Europe, North America, Brazil, East Africa, and Australia.

In Section VI of the report, the etiology of surra has been exhaustively gone into. The predisposing causes are divided into intrinsic and extrinsic—the former includes sex and age, either of which appears to exercise any influence in this direction, but breed however, it would seem from statistics contained in Table VIII., exercises a certain amount of influence. Of 85 horses attacked during the years 1888-1892 in the Bombay Tramway Company stables 80 per cent. were Australians, whereas only 20 per cent. were Asiatics, which goes to prove that the waler is much more susceptible to surra than the horses of the East. The extrinsic causes are classed under climate, residence in a locality where the disease is enzootic, the period of the year, food, drink, overcrowding, work, and wounds. The disease is found to be enzootic when the humidity of the air is greatest, and especially in localities such as Bombay and the adjacent lands below the Ghauts, as also in Lower Burmah. Between the months of June and December, when the humidity average 80·5 per cent., the disease is most prevalent. It is also found under conditions diametrically opposite to those above mentioned, viz., in dry arid districts, subject to great extremes of temperature and to floods during the rains, which leave the land covered with a sediment containing mud and other *debris* swept down from the surrounding elevations.

Residence in a locality where the disease is enzootic seems to exercise a marked influence in the percentage of those attacked. For, it will be seen in table IX., that out of 80 animals attacked during a period of fourteen years, no less than 16·25 per cent. succumbed to the malady during their first year of residence in the country. It has also been shown that after the first seven years susceptibility diminishes in relation to residence, for no less than 76·25 per cent. of those attacked took the disease within the first seven years. Table X. goes far to prove what has been observed in other parts of India and Burmah, viz, most deaths from surra take the disease during the last four months of the year. Out of the 85 Bombay cases no less than 98·8 per cent. succumbed to the disease during these months. Grass and sedgy vegetation, grown on low lying marshy ground, is in all likelihood one of the many sources by which the organism of surra may be conveyed into the system of animals, because it is well-known that grass cutters go where they can obtain the most abundant supply with the least possible trouble. Herbage obtained from such situations, where the water teems with organic life, and where the conditions are most favourable for the development of infusoria, which find a suitable habitat on the surface of such vegetations, must be looked upon as dangerous. Drinking water from stagnant pools and wells, particularly at certain times of the year, is pre-eminently a most fruitful medium for the conveyance of the disease, owing to the fact that infusoria, which are the natural inhabitants of all streams and tanks, are largely developed in stagnant pools and wells. Animals watered, therefore, under such conditions must, as a natural consequence, take in repeated doses of these low forms of life. In support of this fact Doctor Lingard brings forward two separate outbreaks, in which he comes to the conclusion that they were traceable to the water-supply. Overcrowding in itself, further than tending to lower vitality and rendering animals more than ordinarily susceptible to the invasion of any disease, is not looked upon as having any connection with the spread of surra. Work plays no part in predisposing

animals to surra, as the disease is found in the well-fed carriage horse of the opulent as well as in the horse of the hack gharry owner. Wounds in the alimentary canal offer a ready means of entrance for the infusorian into the system.

Under the heading of Exciting Causes, the following points are worthy of notice:—

"The contagium of surra is neither conveyed by the air nor by the sick to the healthy, but gains an entrance into the system, either by the mouth, with the food and water, or it is introduced by some form of superficial inoculation (be it by direct contact of blood or secretion containing blood on an abraded surface, or by the bite of certain flies); and it is necessary for one or other of these two forms of inoculation to take place in order that the disease be successfully transmitted. So that this disease is not contagious in the ordinary sense of the term, but is the result of local causes, endemic in the different parts of the East, where the disease presents itself."

"The blood of an affected animal, when introduced subcutaneously into a healthy one, possesses the power of reproducing the same disease, whether the hæmatozoon at the time of its withdrawal from the circulation of the affected animal be capable of demonstration or not by microscopical means. As regards the quantity required, it has been found that a fraction of a minim of the soiled blood, containing the hæmatozoon, taken from one horse and placed between the edges of a minute wound in the cuticle of a sound healthy horse, was sufficient to reproduce the disease in the animal so treated within seven days."

The period of latency of surra has been gone into at length. In naturally contracted cases of latent period of the disease was found to vary from twenty-nine to sixty-seven days. When given in small quantities in water by the mouth seventy-five days elapsed before any symptoms appeared. By subcutaneous inoculation of blood the disease appeared in five to thirteen days, depending principally upon whether the infected blood was taken from animals previous to or after death.

The duration of surra is impossible to fix with any degree of accuracy, because animals which acquire the disease naturally may die of an acute form in a few days or may linger for a long period, extending to sixty or seventy days. Although it is well-known that the disease is due to the presence in the blood of the *Trypanosoma Evansi*, and is usually with care readily detectable at some stage or another of the malady, still, to quote from Dr. Lingard, "it must be borne in mind that a cursory examination of one cover-glass preparations of fresh blood on each occasion will often prove insufficient, for it happens in the course of a case that several days or occasionally a week may pass, during which period only one hæmatozoon may be discovered in two or even three cover-glass preparations; this most frequently occurs at the commencement or termination of a long paroxysm or in a case of chronic surra."

As far as our present knowledge extends, the prognosis in the horse, mule, and camel must always be classed as unfavourable, but, strange to say, in the bovine species the opposite is the case, and although the infusorian can clearly be demonstrated to exist in the blood of these animals, yet, after a period of fever, they return in time to a state of health. In Section XII. Dr. Lingard enters most fully into the pathological anatomy of the disease. Section XIII. deals with an experimental inquiry into the treatment of surra.

Here we have before us instances of the effects of no fewer than eleven separate drugs, all of which, it is evident, have been given an extended trial. With the exception of arsenic none seem to have had any perceptible effect on the hæmatozoon, and this drug was the only one which had the slightest influence on the vitality of the organisms. As regards the subcutaneous inoculation of blood, etc., a large number of experiments were conducted, but the results were unfavourable, in so far as they afforded no immunity to the animals submitted to the inoculations.

Having seen that we have to deal with a disease which is beyond cure, and always fatal, we must naturally turn to a consideration of the best steps to be adopted to prevent it. Being due to an organism, the question arises how this organism is to be destroyed; and the more we look at this matter the more difficult does it appear, especially in regard to the destruction of the organism as found in food. As far as water is concerned, the best course would be to boil it. This, when there is a small number of horses, is an easy task, and even where there are large numbers it would be false economy not to have this carried into effect. The administration of arsenic to animals inhabiting an enzootic area is recommended by Dr. Lingard, who says:—"It would have to be administered in small, but gradually increasing, doses, for from two to three weeks at a time, with intervals of about the same period. The administration would have to commence at the end of the dry season and be continued with the above intervals, until the end of the rains."

THE ST. IVES "VETERINARY SURGEON" CASE.

Frank Andrew, of Alma Terrace, St. Ives, was charged, at the instance of the Royal College of Veterinary Surgeons, with having on the 16th January used and taken the description of veterinary surgeon, he not having the right to so describe himself.

Mr. J. Chellew for the prosecution, and Mr. E. Boase for the defence. Mr. Andrew pleaded not guilty.

Mr. Chellew said the fine in such cases must not exceed £20. Defendant's name is not on the Register of veterinary surgeons, and he did not hold a certificate before the passing of the Act of 1881. At the last triennal election of the school-board, in January, Mr. Andrew was nominated as a candidate. In the usual way he called at the town clerk's office, had the nomination paper filled in, got his nominator and seconder, passed it into the town clerk's office, and from that there were posters placed on the walls and reports published in *The Cornishman* and other papers.—Mr. Boase: We cannot be responsible for that.—Mr. Chellew said 15 days intervened between the 16th January, when the nomination was received and the time of the election.—Mr. Boase said it was the statutory duty of the town clerk to have the notices published.—Mr. Chellew said the report could have been corrected.—Mr. Boase said they had nothing to do with the papers.—Mr. Craze remarked that the nomination paper could not be corrected after the mayor had passed it.

Mr. Chellew, in reply to the bench, said Mr. Andrew was nominated by Messrs. G. B. Rosewall and W. Trewhella.

Mr. C. G. Steer was called and said he is a clerk to Mr. Boase. The nomination papers were handed to him. He produced Mr. Andrew's nomination paper. He had a boy there, and could not say if Mr. Andrew gave it to him personally. Fifteen came in the same day and he could not remember if the boy or himself received the paper from Mr. Andrew. He examined the forms to see if they were right.

Mr. Gent was called to identify Mr. Andrew's writing, but Mr. BOASE objected that if he had not seen Mr. Andrew write he could not give evidence respecting writing which he had reason to believe was that of defendant.—Mr. Chellew said Mr. Gent had seen a receipt,

which, as a matter of law, Mr. Andrew had to sign himself.—Mr. Treseder (magistrates' clerk) ruled in favour of Mr. Boase's contention.—Captain Paynter said it seemed Mr. Chellew must prove, to the satisfaction of the Bench, that defendant had filled in this portion of the nomination paper. If anyone else had done so he would not be liable.—The Mayor thought it possible for two writings to be very much alike.—Mr. Chellew held that Mr. Andrew had taken and used the words; but if the Bench wished to have proof of handwriting he would apply for an adjournment.—Mr. Boase did not like to raise quibbles but to do his duty to his client. To save trouble he would admit that the words "veterinary surgeon" after defendant's name in the nomination paper were written by Mr. Andrew.—Mr. Chellew: And yet you plead not guilty?—Mr. Boase: Yes, he is not charged with signing his name.

Mr. Boase asked Mr. Gent: You had a case three months ago in which Mr. Andrew appeared as a witness?—In November.—Did you ask him if he was a veterinary surgeon?—Yes, and he said he was not. Did you ask him before?—No.

Mr. Boase, addressing the bench, said the Royal College of Veterinary Surgeons prosecuted Mr. Andrew because at a school board election he had described himself as a veterinary surgeon. He thought it would be unfair to the magistrates, and only to cause delay, by disputing what the prosecution seemed to find some difficulty in proving, and Mr. Andrew had asked him to say he admitted frankly that the words in question were in his handwriting. Here was a big society prosecuting a man who is practising there as a horse and cattle-doctor (which he is perfectly entitled to do) after he has lived there six or seven years among a population of 6000 or so, and supplied a long-felt want of farmers. There is no person on the College Register within a large distance of where he carries on his business. He describes himself on his cards as a horse and cattle doctor, and without interfering with anyone else, has carried on his business apparently to the satisfaction of his customers, and with considerable skill. The preamble of the act intimated that its object was to enable people to distinguish between qualified and unqualified practitioners. The question of motive was therefore very important. It was not suggested that Mr. Andrew was elected to the school board because of his statement as to his occupation. He is there to enlighten the board on school matters and not to enlighten their minds as a veterinary. During the six or seven years this was the first charge. He has not misrepresented himself to the public. This was a very small thing and he did not know who was at the bottom of it. He did not suppose it was the society, nor Mr. Gent, and he did not blame Mr. Chellew, but the matter was stired up by someone. If Mr. Andrew had thought there would have been the slightest objection that people would have been misled or injured, or that it would have brought him under the opprobrium of the Royal College of Surgeons he would not have done so, but would have described himself, as in his bill, as a medicine vendor or horse and cattle doctor.—Mr. Boase said the only object in a school board election was identification, and as defendant is perfectly well-known as a capable horse and cattle doctor people are bound out of custom to describe him as such, although he is not registered. It is straining at a gnat for a society to bring such a prosecution. If in future defendant is guided by Mr. Boase he would avoid prosecution by not describing himself as anything but what he really is.

Mr. Chellew wished to reply, but Mr. Boase said he had no right to do so. The Bench had only allowed the prosecution to reply in affiliation cases, when witnesses were called for the defence.

Captain Paynter: It is one of the most trumpery cases brought before this court, and I hope the Bench will treat it with the contempt it deserves.

Mr. Craze: I am under the same impression as my brother magistrates. Had Mr. Andrew signed his name in order to get business or to prevent an authorised person from getting business it would have been a different thing. To me motive has a very great deal to do with it, and the motive was to get a member of the School Board, not to acquire any more practice. It is a very trivial, trumpery affair.

Captain Paynter: A very thoughtless act. I wonder at such a college bringing such a case.

The Mayor: Had Mr. Andrew persisted in styling himself as such it would have been different.

After private consultation the Mayor said: Mr. Andrew, we have considered your case and, of course, we think you have done wrong in styling yourself, as you acknowledged, as veterinary surgeon; but still we do not think you had any purpose—that is, no feeling that you were likely to benefit yourself in any way. We think it was merely done to describe yourself as a member or candidate of the school board; and, of course, we can but levy a fine. The Bench decide to fine you 5s. and costs.

Mr. Chellew asked for the return of a fee of 6s. 8d. paid to the town clerk for a sight of the nomination paper.

The Mayor: We allow that.—*The Cornishman.*

The Outbreak of Pleuro-pneumonia in Thanet.

The outbreak of pleuro-pneumonia which occurred among stock at Sheriff's Court Farm, Minster (Thanet), in the occupation of Mr. T. Willett, originated in some cows purchased by that gentlemen in August last at the Caledonian Cattle Market, London. A large dairy business is carried on by Mr. Willett, and the cattle affected consisted principally of milch cows, a few heifers, and one bull being included in the stock, which numbered close upon sixty head. The whole of these were ordered to be slaughtered, and during the week the order was carried into effect under the supervision of Mr. Tulford, an Inspector from the Board of Agriculture; and Mr. Dixon, the Veterinary Inspector for the Isle of Thanet district. On Tuesday sixteen animals were killed, eight of which were found to be more or less infected. On Wednesday and Thursday the remainder of the stock were slaughtered, a special staff of butchers being engaged for the purpose. Sheriff's Court Farm and the marsh land in the occupation of Mr. Willet has been declared an affected area, but it has not been deemed necessary to place any restriction on the removal of other cattle in the locality. Traces of pleuro-pneumonia have also been discovered on Hoo Farm, Minster, in the occupation of Mr. E. Maxted. The horned cattle on the farm have been slaughtered, and the lungs sent to the Board of Agriculture for verification of the outbreak.

A Cure for Murrain.

The Madras Mail of 1st May, 1894 contains the following:—

SIR,—Please insert the accompanying receipt in your paper—as I found it an absolute cure, and I know of hundreds of cattle saved by trying it:—Take 5lbs. of meat off a cow recently dead of murrain (24 hours or sooner if possible); macerate this in 4 quarts water—90 *degrees of heat, no more and no less*—express the raw juice and give each animal 1 quart—*sick or well.* Take care to have a bundle of grass and a pail of congee accessible to each animal—(tied to a post in the corner is best, to prevent spilling) for when an animal takes a turn, he is always hungry and will eat at once. M.

Glanders and Swine Fever in Huntingdon.

A serious outbreak and spreading of glanders and swine fever has occurred in the county. Three cases of the former disease among horses have been reported as follows :—Upon premises occupied by Mr. John Goodliff at the George Hotel yard, and also upon premises situate in rear of the "Railway Inn," Huntingdon, also in the occupation of Mr. John Goodliff, who on Monday last had three horses that were suffering from the disease shot by order of the Inspector of the Board of Agriculture. Another case is upon premises situate in the village street of Fletton, Hunts., in the occupation of Thomas Mitchell, and the third case is in a yard at the north end of Stilton, abutting on the west side of the village street, in the occupation of George Henson.

With regard to swine fever the returns are not now made to the Executive Committee direct, but the police in the different districts of the county forward them at once to the Board of Agriculture. We learn, however, upon the highest authority that the disease is in a most rampant state in all parts of the county, and that since the Board of Agriculture took over the management of these swine fever cases the disease has wonderfully increased throughout the county, and that some hundreds of pounds have been paid as compensation to owners. There have been as many as 31 cases at a time remaining over.

Rabies among Cattle in Cheshire.

Three cows belonging to Mr. Joseph Buckley, Middlewich, were seen to be suffering from some unusual complaint, and Mr. Barker, veterinary surgeon, was summoned. He certified that the cattle were suffering from rabies. Death took place almost immediately. At first the origin of the outbreak was a mystery, but it was remembered that a dog belonging to Mr. Proudlove, a neighbouring farmer, had died about a fortnight previously and been buried by the local board workmen. The body was exhumed and examined, and it has been certified that the dog died from rabies.

GLASGOW VETERINARY COLLEGE.

In "making up" the paper last week the following concluding lines of the list of awards were inadvertently omitted.

J. Smyth, and R. H. Johnston. Chemistry—Silver medal, J. Marshall; first class certificates, T. Rennie, J. R. McCall, R. Porteous and J. F. McEachran; second class certificates, W. Crawford, D. Walker, J. Donaldson and J. Smith. Botany—Silver medal, J. Marshall; first class certificates, T. Rennie, D. Walker and J. McEachran; second class certificates, D. Jack, R. Anderson and J. Donaldson. Zoology—Silver medal, J. R. McCall, first class certificates, J. McEachran, J. Marshall and D. Walker; second class certificates, J. Smith, W. Kil Patrick and R. G. Anderson.

ARMY VETERINARY DEPARTMENT.

Veterinary-Colonel J. D. Lambert, C.B., Director General, A.V.D., was a guest at the Ministerial Dinner given by the Secretary of State for War, in honor of Her Majesty's Birthday.

In the recent list of honors conferred by Her Majesty, the name of Veterinary-Lieut.-Colonel W. B. Walters appears among the recipients, as having been awarded a Companionship of the Most Honorable Order of the Bath, (Military Division).

Veterinary-Major S. M. Wilson and Veterinary Lieut. A. E. Richardson have been appointed to take veterinary charge of the horses, Military Tournament, at the Royal Agricultural Hall.

OBITUARY.

The death is announced of Mr. W. E. Lawrence, Durham, who graduated July, 1887; also of Mr. M. A. Browne, Wexford, Ireland, graduated April, 1883.

CORRESPONDENCE.

PROFESSIONAL ADVERTISING.

SIR,

I am sure that the letter which appeared in your issue of May 26th signed by Mr. Howard, must have caused many of your readers to again see the double necessity of preventing professional advertising. Mr. Howard speaks of the necessity of veterinary surgeons forming a protection society in which their interests will be guarded; in that I quite agree with him; and would advise that the first steps they take, would be to put down advertising in any form, for there is no doubt that advertising tends to lower in every way the professional and social standing of the veterinary surgeon.

Of course a man who places himself upon the same level as "blacksmiths, saddlers, and quacks" cannot expect to receive the same "priviliges and respect" as a medical man. It rests entirely with the veterinary surgeons as to the position he holds, if he acts and behaves himself as becomes a gentlemen and professional man there is no reason whatever why he should not command the same "respect, position and privilege" as the majority of medical men. But from what I can see it seems to be the chief desire of a few to lower, instead of elevate the standing of the veterinary profession, which again shows the necessity of having a body of men in whom the power lies of striking off the Register those persons who are not able to conduct themselves in a way that is becoming to the position they hold.

Faithfully yours,

P. EASTE.

THE RECENT EXAMINATIONS.

For many years a great deal has been said and written about the education and examination of the veterinary student, that one would think by this time the whole thing should be about perfection. But in my opinion such is far from being the case, as I consider a great injustice is often done to students at these examinations.

I am a veterinary surgeon having a large practice, and was a few years ago offered, but did not accept, a professorship at the R.V.C., so that I may be considered something of a judge as to a student's knowledge. I have a son, student in class B at the R.V.C., and I have no hesitation in saying that he is one of the hardest working lads that ever studied the veterinary science. In his monthly examinations he distinguished himself by gaining good marks. In the written examination recently held for his class he answered his questions satisfactorily, and at the oral he answered most of them correctly. This he knows by at once referring to his books when he got home. Yet his examiners rejected him, much to his astonishment; and also that of his fellow students, who knew him to be one of their best. But my son was not alone, for there were several other *good* students who shared the same fate. To make matters more mortifying some students who were noted as being non-workers were "let through." Now what inducement is it for an intelligent and industrious youth

to bore his brains day after day, early and late, injuring his health, and knowing his work well, to be rewarded by finding himself rejected, when he sees other students whom he knows have been non-workers, and "complete duffers" let through? I consider such treatment unfair, cruel, and most disheartening. An examiner's duty should be to endeavour to find out what a student knows, and not simply try to reject him, but rather to try and pass him. How would the examiners like to have been treated so themselves? If they were to undergo an examination, they would find they were not perfect.

Should not the method of examination be altered, so that each student had the same questions, both written and oral? And should not the monthly examinations be taken into consideration? And could not something be done by way of appealing in cases of supposed injustice? As the examinations are now conducted they seem a lottery; and in many instances, no test of a student's knowledge. It seems to depend upon the humour of the examiner, and to the student's luck, as to whether he is asked easy or difficult questions.

In conclusion, I must say that if all the students who the examiners have favoured, were better posted than my son (who is even now competent to take full charge of a good practice) there will be some extraordinary smart men soon to enter the ranks of our noble profession, but alas! I pity many of them, for they will find out to their disgust that they have made a sad mistake in the choice of their vocation. For I believe that many will scarcely be able to earn their daily bread, much more obtain a decent livelihood from their profession. I know of several M.R.C.V.S, who have abandoned their profession, to take situations such as relieving officer, clerb to a corn merchant etc., etc.—Yours truly,

"FIAT JUSTITIA."

THE NOMINATIONS.

SIR,

I beg to thank you for the effort you have made to right a wrong. Whilst certain forms of political opposition are recognised and sanctioned by custom, there are others which it is disgraceful even to touch. I might not unjustly complain on personal grounds of the effort made to injure me, but I cannot help feeling that, after all, my grievance is a slight one compared with that suffered by the profession which, as you point out, would be altogether paralysed at elections, and its intentions set at nought were a repetition of this incident allowed to occur.—Believe me, yours faithfully,

JNO. A. W. DOLLAR, M.R.C.V.S.

56 New Bond Street, W.

COMPARATIVE DENTAL PATHOLOGY.

SIR,

Comparative dental pathology at this particular stage of civilization is very interesting and alarming. We well know that equine subjects are not particularly liable to premature decay of the teeth. Although in aged animals the molars became somewhat irregular in position and length, it is very unusual to find actual decay of their structure unless from some accident. Sporting dogs, and those in a wild state, and in fact all animals in a natural condition are also not subject to decay of their teeth. Sheep and oxen are not subject to premature tooth disease. Man in his wild or uncivilised state was not, and is not, troubled much with toothache and premature dental decay.

Having thus briefly examined the matter in animals existing in a natural condition, let us look at them as they are to be seen living under the peculiar circumstances of civilisation. Pet dogs are excessively subject to trouble with their teeth, and although my practice has been mostly equine, yet I have seen many mouths of dogs in the most horrid state. All practitioners of canine surgery well know the characteristic odour from the mouths of pet dogs. They also know the stinking and horrible condition of the teeth and gums. Strange to say I have found that cats are very little liable to diseased condition of their mouths and teeth. Monkeys I know little of in this direction, although I had one as a companion for some length of time, and a most amusing fellow he was.

We all know that human beings are, in this generation, alarmingly subject to diseased teeth. And it seems that the more artificial and unnatural the state, so the trouble increases, the people of the United States to wit. It is a recognised fact that in this country rich and prosperous people are more afflicted with decayed teeth than their poorer fellows. To me it seems that indigestion is one of the principal causes. Gout produces a peculiar acid state of the saliva which acts upon the enamel. In this disease the gums recede very much. Dentists state that the average jaw is much smaller than formerly, due no doubt to the fact that our food being cooked and prepared there is no necessity for so much mastication—all organs wasting in proportion to their non use. The immature and undeveloped state of the "wisdom" teeth being a good proof, and this surely speaks volumes. Women are quite as subject to dental troubles as men. It seems to me that, due to the abnormally acid saliva, a crack appears on the enamel of a particular tooth, and then "mould" or vegetation collects on this crack (tartar) which ultimately destroys the whole crown of the tooth, much in the same way that a mechanical injury may happen to a stone or a rock, on a ruin or elsewhere, and vegetation makes its appearance, which also assists in its decay. I do not intend to wander from the subject, but it seems interesting that cancer and premature tooth diseases are perhaps more on the increase than any other ailments. Although I am a veterinary practitioner I may be allowed to say, perhaps, that I think men suffering from cancer, hereditarily, are generally the subjects of dental disease, I mean to say they generally are found occurring together.

Brown bread is certainly a more natural food than white. Feeding bottles instead of the natural mother's milk have a very great deal to answer for. For instance calves that are reared *artificially*. What a vast difference there is between them and those allowed to take nourishment from their mother till the cow herself prevents them! Even where the mother is diseased hereditarily, I believe the child would be better for the natural food. Have we any analogy to the "wisdom" teeth in the lower animals? Forgive this mixed and muddled epistle, as there are many and various calls upon me. In conclusion, I believe that the time will come when *stronger moral influences* will be brought to bear upon men and women *to induce only the mentally and physically fit to reproduce their species*.—Yours faithfully,

OBSERVER.

COMMUNICATIONS, BOOKS, AND PAPERS RECEIVED:—Vet.-Major Adams, Messrs. C. Pack, J. A. W. Dollar, J. Webb, P. Easte, H. G. Rogers, J. A. Robinson, W. Mole, T. B. Goodall, J. Woodroffe Hill, J. Rutherford, J. Howard; *Agricultural Journal* (Cape), *The Cornishman*.

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Communications for the Editor to be addressed 20 Fulham Road, S.W.